



**1<sup>ST</sup> SEM. 2008/2009**

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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME: BSC. IN AGRICULTURAL EDUCATION IV  
BSC. IN ANIMAL SCIENCE IV**

**COURSE CODE:       APH 408**

**TITLE OF PAPER: POULTRY PRODUCTION**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS:   ANSWER ANY FOUR (4) QUESTIONS**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN  
GRANTED BY THE CHIEF INVIGILATOR.**

**Question 1**

As a manager at National chicks hatchery, you observed a decrease in hatchability in last three successive batches of eggs incubated. Discuss how you will go about tracing the root cause of the problem. (25 marks)

**Question 2**

Discuss the management of adult layers including routine management. (25 marks)

**Question 3**

- a) Describe the different systems of raising poultry (20 marks)
- b) Which system would you recommend and why? (5 Marks)

**Question 4**

What causes the following during the incubation of eggs?

- a) Blood ring (embryonic death within 2 – 4 days (6 marks)
- b) Clear eggs (4 marks)
- c) Chicks dead after piping shell (12 marks)
- d) Crippled chicks (3 marks)

**Question 5**

Formulate a layer ration using yellow maize, sunflower meal supplemented with 5% fish meal, 5% vitamin and mineral premix and 0.3% salt.

Nutrient composition of the ingredients:

Ingredient	Energy (MJ/kg ME)	Protein (g/kg)	Calcium (g/kg)
Yellow maize	13.4	100	0.3
Sunflower meal	8.83	321	2.0
Fish meal	12.9	600	79.0
Vit/min premix	-	-	-
Limestone	-	-	337

Layer nutrient requirement

Energy (MJ/kg ME)	Protein (g/kg)	Calcium (g/kg)
11.1	160	30